

Language Pedagogy and Non-transience in the Flipped Classroom

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Abstract

High connectivity at tertiary institutions, and students who are often equipped with laptops and/or tablets as well as smartphones, have resulted in language learners being able to freely access technology and the internet. Reference tools such as dictionaries, concordancers, translators, and thesauri, with pronunciation and usage tips, are available at the touch of a screen. The web brings a virtually endless corpus of authentic written and spoken target language usage, and instant communication with target language speakers anywhere. Video recordings of teaching or materials created for language learners can be viewed and reviewed at the learner's convenience and reused by the teacher, freeing contact time for interaction. This paper distinguishes between asynchrony and non-transience and discusses which material can best be offered to language learners in tertiary education in a non-transient or enduring form rather than as live teaching, why this might be a good idea, and how to create and curate non-transient resources for individualised language learning.

Keywords: flipped classroom; language education; language pedagogy; language teaching; non-transient media

Introduction

The terms "flipped classroom "and "flipped learning" are associated with two American high school science teachers, Bergmann and Sams (2012; 2014). The defining characteristics of the basic flipped classroom are that students "watch instructional videos at home and do the typical homework (worksheets, problem sets, back-of-the-chapter exercises) in class" (Bergmann & Sams, 2014, p. 6). The idea is that knowledge and understanding can be gained by watching videos alone at home, but the application of this knowledge can benefit from the support of the teacher and interaction with peers. Many teachers have found the notion of the flipped classroom appealing (Gilboy, Heinerichs, & Pazzaglia, 2015) and anecdotal reports of its adoption can be read in teacher blogs. In this paper I will examine the relevance of this innovation for tertiary education, particularly language teaching.

Flipping

In terms of the later versions of Bloom's Taxonomy of Educational Objectives (e.g., Krathwohl, 2002), the goal of learning is for students to be able to remember, understand, apply, analyse, evaluate, and create. In traditional teacher-led classroom teaching, remembering and understanding are achieved in the classroom, while application is the student's responsibility (Bergmann & Sams, 2014; Cunningham, 2014). In the flipped-learning model, on the other hand, learners shift the stages of remembering and understanding from the classroom to their pre-class study of non-transient materials such as web-based lectures or video clips. In this way, there is time in class for them to apply their new knowledge, to further analyse new data and evaluate

their learning. They might also create something new from the process. They can, quite simply, get further if they use the flipped model as intended, because advanced processing of ideas and concepts will be worked on with teacher and peers rather than being assigned to unsupported students for homework (Gilboy et al., 2015).

Effects of flipping on learning outcomes

The idea of separating the delivery of lecture-like elements of lessons from students' application of knowledge is intuitively attractive, but as yet there is little evidence that it actually makes a difference to students' learning. Some studies have sought to find improved learning outcomes for students in flipped classrooms, but the usual constraints faced by practitioner–researchers make research into this field challenging. It is inherently difficult to set up empirical studies of learning with control groups and sufficient numbers of participants to make a quantitative study reliable, and the teachers who are flipping their classrooms may be motivated more by the needs of their students than by the potential for documenting their work in research outputs. The effects of the flipped learning model are not, however, confined to the results achieved by the students. In a study of teaching Material Technology at a university in the West Indies, Blair, Maharaj, and Primus (2015) found that, although a flipped model did not apparently affect exam performance, lecturers were keen to continue because they perceived that the flipped format allowed more time for them to work with individual students. This model does open up new possible uses of the class time that becomes available when students spend time before class engaging with flipped (non-transient, asynchronous) material.

This additional available time must, of course, be used thoughtfully. The students who need most support may be able to get more time with the teacher, either individually or in small groups. It might also be possible to direct struggling students—or those who are eager to extend their learning beyond the course syllabus— to view different pre-class materials. Other kinds of scaffolding and differentiation can be employed in the classroom, with alternate activities and different degrees of difficulty. Students can be empowered to select material according to their level of ambition, or the teacher can guide them to appropriate material. Because the prepared material is non-transient, it can also be viewed in class.

Lectures are not optimal

Traditional unidirectional lecture-type teaching is not the best way to teach. Previous research has shown that students cannot focus longer than about 20 minutes on a lecture (e.g., Smith, 2001), yet many lecturers and teachers, including language teachers, feel some aspects of lessons are best explained orally to students, with or without visual support. At least part of a lesson will often take the form of a chalk-and-talk or may be based on a PowerPoint presentation. In much tertiary and even high school education, lecture-style episodes are still common. Many tertiary educators have not been trained to teach, and lecturers may not have an alternative to the formal lecture as a means of delivery. Consequently, they often resort to teaching as they have been taught, so many students are still expected to passively receive information in 60- or 90-minute lectures. Efforts have been made to increase the interactivity of formal lectures: Ebner (2009), for example, describes the use of micro-blogging to overcome the problem of students who are reluctant to ask questions in lectures, and Green, Chang, Tanford, and Moll (2015) looked at the greater positive effect of clickers than of lecture software apps on the self-reported engagement of hospitality students in Singapore.

Traditional teacher-led lectures are not typical of language classes with communicative skills in the target language as the object of teaching and assessment. However, in many parts of the world there is still a desire to teach and assess explicit language knowledge, and lecture-like teaching is still used. Long and Robinson (1998) distinguished between *focus on forms* (plural)—where linguistic structure is used as the organising principle for a language course—in contrast to

focus on form (singular)—where attention is paid to linguistic structure as and when it is necessary for learners' communication. Focus on form is viewed as the dominant good practice in contemporary meaning-focused language teaching. Flipping the language classroom by providing online video lessons that explain or clarify a point of structure may be a way to enable the insertion of focus on forms without breaking the flow of communication necessary for focus on form. Flipping can satisfy the preferences and expectations of learners who expect to learn grammar and who feel anxious when they cannot recite verb tables and vocabulary lists, without compromising learning conditions for the development of learners' communicative competence.

These online video lessons can be used for focus-on-form instruction (Long & Robinson, 1998) at the point of need in a meaning-focused approach (e.g., East 2012). Similarly, when cultural knowledge is part of the curriculum, online video material that can be viewed outside class time can support development. Online video material can also be used to present, characterise, and exemplify genres that the learners might need to become familiar with. Such material may be teacher-produced or sourced from elsewhere.

Learner experiences and beliefs

We know a good deal about how students perceive live lectures versus web lectures and how they use recordings of live lectures when they are available. An Australian study of nursing students that compared students who had access to recordings of lectures with students who did not have access to recordings found that, although 96 per cent of the students who had access to the recorded lectures did view them, the students who did not have access had better results (Johnston, Massa, & Burne, 2013). This finding was attributed to those students who had access to recorded lectures choosing to not attend the campus lectures and, instead, engaging with the recorded lectures for the first time when they prepared for major assessment tasks. Studies often find that students enjoy flipped learning even if their results do not always improve, though this may not be the case in all contexts. For example, in a study of flipped learning in Asian universities, Chua and Lateef (2014) questioned whether the popularity of flipped pedagogy in the west would be echoed in Asia, and Trinder (2016) found that Austrian university students indicated a preference for face-to-face interaction over virtual environments for language learning.

The above-mentioned study of Australian nursing students considered their attendance at live lectures and their viewing of recorded lectures (Johnston et al., 2013). It was found that the students liked to access recorded lectures for revision, but might not have viewed the recordings before they started to prepare for exams, instead "seemingly relying on heavy access to the recorded material immediately prior to major assessment tasks" (Johnston et al., 2013, p. 45). The unlimited availability of the recorded lectures actually led the students to postpone their viewing, suggesting that students might need support to access the digital materials in a more appropriate way.

Student engagement

Students' reluctance to engage with online material that their teachers have prescribed for them has been addressed as described below. There is the potential, in flipped pedagogy, for students to turn up for class without having done the required preparation, but it is crucial that students do this work. Less-engaged students in particular might need encouragement to access the materials and use them as intended. Bishop (2013), looking at the application of flipped learning in Engineering education, was disappointed to find that students did not complete the work expected at home because it was not assessed. Cunningham, Beers Fägersten, and Holmsten (2010) found that students of English for specific purposes in Hanoi were not inclined to comply when instructed to listen to teacher-generated podcasts according to a set programme.

The difficulty of getting students to complete assigned tasks before and/or after class has been addressed in several ways, but one of the more promising may be the extrinsic motivation offered by awarding grades to work submitted before class. One such approach is definitional grading, such as described by Looney (2003), which eliminates the possibility of poor performance in one area of a course being offset by good performance in another. In definitional grading, the teacher defines the minimum requirements for each component of a course (e.g., a test, participation in discussions, or pre-class work showing engagement with flipped material) and the student is given a grade corresponding to their lowest performance in any course component. A similar result is reported by Bergmann and Sams (2014) who used online quizzes to assess student understanding of the flipped material. Boyer (2013) recommends beginning each lesson with a quick test, so students get used to being accountable for their pre-class preparation work.

Not being assessed on pre-class work is just one of several possible reasons for students not engaging, or only partly or half-heartedly engaging, with assigned preparatory work. Another possibility is that students do not feel their preparation is important or necessary if (because some students have not prepared adequately), the teacher presents the material at the beginning of class. Some students may feel that they can "wing it" and catch up as the class progresses.

In addition, if the pre-class material is long or arduous, students may abandon it mid-way, or skim through it. Many teachers have shared their experience in this respect, such as in the Atlanta Tech Forum (2014) where a teacher gives this advice: "...you can't put a 50-minute lecture up on a video. They're not going to watch it" (p. 10).

Some teachers may fail to challenge their more able students in an effort to secure the compliance of the larger group. The flipped classroom, however, provides the opportunity for individualisation. This topic will be revisited in sections below.

Learner metrics allow teachers to monitor and analyse students' viewing behaviours of online video material such as is often used in flipped learning. Kleftodimos and Evangelidis (2014) outline a method whereby educators can access information about individual learners and groups of learners who start watching an online video; how long they watch; and where they pause, go back over material, or abandon their viewing. In their study of Computer Science students in a technical institute in Macedonia, they found that, although 43% of students viewed videos straight through, 18% abandoned their viewing before they had seen 60% of the video.

Asynchrony and non-transience

This section introduces the sometimes coinciding parameters of synchrony and non-transience. Synchrony refers to events happening at the same time, such as a lecture that is being viewed while it is being produced. Asynchrony, on the other hand, refers to events occurring at different times, such as an online recorded lecture being viewed after the event. Transience refers to events or artefacts that are ephemeral, such as a live unrecorded lecture, while non-transient events or artefacts remain available to be viewed on demand, often at the viewer's convenience. These parameters are important in immediate and mediated communication, and ubiquitous technology is changing the relationship between them.

Asynchrony

According to Hrastinski (2008), synchrony in educational meetings leads to personal participation, which is reflected in increased arousal, motivation, and convergence on meaning. Attending a live class is, he proposes, simply more interesting than watching a screen after the event, when there is no possibility of interaction. Asynchrony, on the other hand, Hrastinski suggests, leads to cognitive participation: increased reflection and ability to process information. This is true even of written interaction in online courses. Some learners enjoy being able to take

time writing their responses in forum discussions. Others are more engaged in the immediacy of a live meeting, even online. Cunningham (2014) showed that both on-campus and online students valued the opportunity for online students to participate online in on-campus classes.

Conditional asynchrony can be introduced with a learning platform, such that a student must complete A before moving to B, or must post to a forum before gaining access to other students' postings. It is important to note that synchrony/asynchrony and transience/non-transience are separate dimensions. Figure 1 shows how these parameters vary independently.

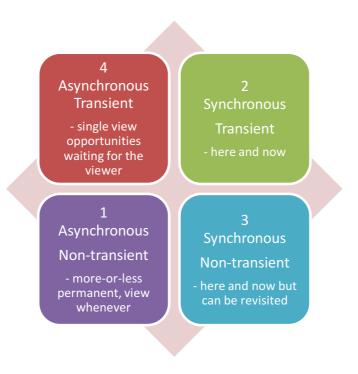


Figure 1 Examples of synchrony and transience and their interaction

1. Asynchronous non-transient

Asynchronous non-transient (bottom-left quadrant of Fig. 1) applies to the most common kind of flipped materials for language teaching: those that are made especially to be viewed by learners without teacher support. These materials are more or less permanent and can be viewed whenever the students wish. They may be videos or podcasts, prepared or collected by the teacher or others using video or screen capture software, and distributed on the web or the institution's learning management platform or website. They also include open educational resources such as the material on iTunesU or Khan Academy (https://www.khanacademy.org), e-books, or printed materials (although these would not usually be characterised as flipped materials). Another kind of non-transient asynchronous material is recordings of live presentations or classes, or recordings of the live streaming of such a class.

2. Synchronous transient

The synchronous transient material (the top-right quadrant) is in maximum contrast with material and teaching in quadrant 1. Teaching in quadrant 2 is usually ephemeral' here-and-now, face-to-face teaching in physical environments, but can also be computer-mediated communication, such when as a distance student participates in a class that is live-streamed using, for example, Adobe Connect, Google Hangouts or Skype.

3. Synchronous non-transient

Synchronous and non-transient material (the bottom-right quadrant) are experienced by the learner in real time, but are recorded and can be revisited later. When live-streamed material is recorded and the recordings are available to learners, they become non-transient. For example, a function in Google Hangouts enables registered users to have a completed hangout instantly posted to the creator's YouTube channel. Text chat is another example of this. The actual communication between the chatters happens in almost real time, but it can also be viewed later by the original communicators and, depending on the settings, others who view it, as asynchronous, non-transient material.

4. Asynchronous transient

Asynchronous transient materials (the top-left quadrant) are single-view opportunities waiting for the viewer. These are not very common, but a non-technological example would be a message written on rice paper for a spy to eat after reading. Interestingly, the non-transience of most computer-mediated communication has become a bit of a problem as people have become aware of their digital footprints—information on social media can endure for years after it is posted, potentially causing embarrassment to the individual. Snapchat (www.snapchat.com) is one solution. This is a photo-sharing app that allows users to send images that disappear, ostensibly irretrievably, within seconds of being opened.

Non-transience

This paper argues that the main characteristic of the material in the flipped learning approach is that, as well as being intended for asynchronous viewing, it is non-transient. In other words, the material does not disappear after it is produced, as a traditional live face-to-face lecture does. Students can rewind the lecture or other video or sound material as often as they want. Unlike the ephemeral lecture, where a moment's inattention can result in losing a point entirely, learners can stop, rewind, and review until they are satisfied. They can view the lecture again, and repeat the lecture experience before their assessment; some students might review the lecture even if they have attended it (Johnston et al., 2013). While this availability is useful for students who miss class and need to catch up, there are also benefits for learners who need to listen more than once to understand the material. For example, a live face-to-face lecture can be very challenging for learners whose first language is not the language of instruction, and non-transient materials allow them to listen repeatedly.

Non-transient resources have other advantages too. Learner autonomy is more easily augmented, and learners empowered, when they can choose the activities, targets, and support. The web offers endless self-access materials. A curated library of video material presenting particular structures of the target language allows learners to be independent of the teacher at times. The teacher, in turn, can offer different materials to different learners according to their level or their targets for learning.

Because non-transient materials can be rewound or reviewed for flexible self-access use by learners there is no sense of urgency as there is with face-to-face lectures, which are generally annual events. Learners are usually able and allowed to use non-transient resources at their own convenience and/or point of need. But there are some disadvantages. As indicated by Johnston et al. (2013), non-transient resources can be subject to loss due to procrastination, failure to value the material, inability to sustain effort, or poor study habits.

Transient communication or materials, on the other hand, are more of a "use it or lose it" kind of opportunity. A live lecture demands attention and sustained concentration at a given time, not of the learner's choosing. The lecture is subject to loss due to students missing class, being distracted, or suffering from information overload in the sense that they are not able to process the contents of the lecture in a single sitting.

Applying flipped classroom pedagogy to language learning

Transient and non-transient resources for language teaching

Table 1 summarises the when, why, what, and how of possible uses for transient and non-transient resources in learning and teaching languages. Transient resources, which will not or cannot be revisited for later use, are used in synchronous interaction in the target language. This interaction can be pair work or group discussions, in or out of the physical or virtual classroom. The teacher can then be on hand to offer individualised scaffolding, instructions, or explanations of the task at hand. Both spontaneous and planned opportunities are likely to happen in the synchronous transient space. Direct teacher feedback is also transient—a casual "great polite objection strategies there!" is ephemeral but leaves a glow in the learner's memory. Similarly, any real-world interactions the learners undertake in a target language context are transient unless there is some kind of film or audio recording made.

Non-transience is useful if the teacher wants to seize an opportunity for focus on form during a communicative activity. This can be done by directing learners to a pre-recorded resource that explains a point of grammar. For example, rather than being obliged to conjure up an explanation of subject—verb agreement every time it is needed, the teacher can produce or source a thought-through video presentation in either the learners' first language or in the target language. Such a resource can be used multiple times and referred to by both teacher and learners (if they have free access to the materials).

Table 1 Transient and non-transient resources for language teaching

	Transient	Non-transient
When?	Learners interacting in the target language Peer and teacher feedback Collaborative work Real-world interactions in the community	Focus on form at the point of need Learning about the target language culture Input in the target language Task-based language learning and teaching Formative assessment or oral feedback Wrap-up lectures
Why?	Flexible seizing of opportunity for scaffolding learners' output Spontaneous and planned opportunities for interaction	Save classroom time for interaction and real communication Individualise teaching by referring students to online material at the point of need
What?	Interaction in the target language Individual explanation and instruction Spontaneous feedback	Open and closed libraries of digital material (video, audio, text) Spontaneously produced resources (e.g., in response to student requests) Instructions and supporting materials for activities and tasks Student performance for sharing
How?	Teachers and learners interact in a traditional physical or synchronous online learning space	Tablet screen capture (e.g., Educreations) Screen capture (eg., Camtasia/SnagIt YouTube)
Examples	Executing tasks in groups Interactive learning and language use Spontaneous, responsive instruction by peers and teacher	Grammar explanations Vocabulary presentations Stroke order for writing characters Spelling rules Writing conventions Reference resources Videos for pronunciation Strategies for reading and listening Strategies for speaking and writing Strategies for self-correction

The rewindable quality of non-transient resources makes them useful for information learners might want to return to, such as instructions for, or conditions of, the task they are working on. If there is a pre-task video, they might be ready to view it at different times and they might want to share it with their families. Ideally the non-transient resources will be available on demand, at the learners' convenience. Many learners appreciate having feedback on their written work in the form of a screencast of their text with an audio commentary. This can then be viewed and listened to multiple times as the learner works through it, and revisited during later writing. Screencasting can also be used to make a spontaneous non-transient talk-through of anything that can be done on screen, such as finding an article in the library, or using the spell-check and dictionary functions in a word processor. Students can learn to make screencasts and other non-transient material for each other and for learners coming after them. Such materials could be task-output presentations (e.g., on a country in which the target language is spoken) or learner-

produced audio files of spoken book reviews that can be linked to QR-codes on stickers inside the covers of school library books. This gives an audience and an authenticity to learners' tasks, empowers them, and promotes their autonomy as users of the target language.

However, the main advantage of using non-transient materials in the context of flipped pedagogy is that they free up classroom time for interaction. Professional views of how languages are learned are still split between those who focus on form and prioritise learning about the language and learning to use the target language accurately, and those who focus on meaning and prioritise implicit language knowledge and learning to use the target language spontaneously. Many national language curricula, such as the Swedish GY11 (Skolverket, 2011) and the New Zealand Curriculum (Ministry of Education, 2007) now suggest emphasising meaning-focused activities that lead to a course aim of communicative competence. The use of form as an organising principle for the syllabus has therefore fallen out of favour in many contexts, and second-language acquisition research has bestowed lists of principles for language teachers on which to base their planning, teaching, and assessment (e.g., Ellis, 2005, 2012; Nation, 2007). Nation's four strands model, which places equal emphasis on meaning-focused input, meaning-focused output, language-focused learning, and fluency development (Nation, 2007) is useful here. As will be explained below, a language course based on these four strands can be easily enhanced by the judicious use of technology in general, and by strategic flipping in particular.

There is compelling evidence that interaction in the target language is a necessary part of fluency development (e.g., Ellis, 1991; Mackey, 1999; Tran, 2009). Task-based, and other meaning-focused language teaching, requires time for learners to work together to practice using the target language in real communication under the guidance of the teacher or a more experienced interlocutor. Flipped pedagogy can be applied to free up time in the language classroom (when teacher and learner are co-present) for learner—learner and learner—teacher interaction. Other interactions are also possible, with virtual or physical guests who may be proficient speakers of the target language, or by tele-collaboration with another class.

In fact, the thinking behind flipped learning is not entirely new to language educators. Boyer (2013) noted that while the term 'flipped classroom' was new to her, teachers she worked with were already producing recorded elements to repeat concepts for students who missed class, and were sharing these materials with other teachers. In addition, language teachers have always asked students to preview a reading or (re)visit a resource before the next class. The benefits of repeated exposure to the target language are widely understood. Extensive reading and writing have often been assigned outside class while, in some systems, speaking and listening have been prioritised in class where the teacher can serve as a model for the learners' oral production. Advances in connectivity, the development of vast amounts of authentic and adapted content for reading and listening (such as podcasts) and the ubiquity of mobile devices (e.g., smart phones) have led to extensive listening or viewing becoming more practical pre-class activities (Grönlund & Viberg, 2013). What is perhaps new is that the resources often used in flipped classrooms are typically non-transient and are digitally mediated so students can access them when and as often as they want.

Digital technology allows teachers to offer material that is available at any time, using video with its multimodal affordances and the possibility of differentiating the material prescribed for each learner. With a library of video resources such as LearnersTV (www.learnerstv.com), or with customisable, or adaptive learning technology such as that produced by Language Perfect (www.languageperfect.com) which provides grammar explanations and activities as well as vocabulary training, teachers can offer tailored input for learners at the point of need. In contemporary task-based language teaching, this allows focus on form, and even explicit grammar lesson snippets in the 'heat' of a task or in the post-task phase (East, 2012).

Language pedagogy-driven use of technology

Language educators who want to flip their language classrooms have many more options than just video mini-lectures. Early tutorial applications in computer-assisted language learning (CALL) such as Hot Potato (www.halfbakedsoftware.com) lent themselves to grammar drills and encouraged early adopters of software to become pedagogical laggards in the terms of Roger's (2003) Diffusion of innovation model because, lured by the affordances of the technology, they fell back on out-dated approaches to language teaching. This tendency for language educators to regress to earlier ways to teach and learn languages when they were eager to introduce technology into their practice has been observed by Davies, Otto, and Ruschoff (2013, p. 25). They describe how "the clock was turned back in the early 1980s, resulting in the production of an abundance of grammar and vocabulary practice programs—drill-and-practice or 'drill-and-kill'—in spite of the fact that the communicative approach was by now well established".

However, in a study of adults in Turkey preparing for professional English language exams, Kılıçkaya (2015) suggested that, as communicative competence is not the main target of such learners, learner-centred computer-based procedures may not be well received by them, or be optimal for their need to develop accuracy in a short time. Egbert, Herman, and Chang (2014) link flipped pedagogy, and the engagement of pre-service teachers of Chinese in the United States, to studies of optimal language learning.

The presentation-practice-production (PPP) model, a weak interpretation of the communicative approach, is standard practice in much teaching of English as a foreign language (EFL) and in other foreign language teaching in most of the world at secondary and tertiary level. Cook (2016, p. 292) refers to PPP as "the mainstream EFL style". The PPP model has a structurally organised syllabus with points of grammar being taught deductively (presentation), and then being applied in controlled language activities (practice). Learners are finally given communicative activities in which to use the target structures in free language. These activities are designed to encourage their use (production). It would certainly be unfortunate if the flipped language classroom were to be interpreted as a digital version of PPP, in which students view web-based videos on grammar points at home, and do exercises or worksheets in class to practice the form in controlled contexts.

A better application of the PPP model would involve learners completing both the present phase and the practice phase at home before class, leaving the freer production phase for the classroom. This would solve problems such as that identified by Le (2011), who described secondary school contexts in Vietnam where the PPP model is centrally mandated for teaching English. Le found that the free-production phase of the PPP model appears to be generally neglected. He wrote "most of the teachers acknowledged that they either skipped the production stage or spent very little time on free activities because of time constraints" (Le, 2011, p. 142). This resulted in teaching that was very focused on the acquisition of explicit language knowledge, which, along with vocabulary and reading comprehension, was what was actually assessed (Le, 2011, p. 191).

Many teachers in New Zealand use apps such as Socrative (socrative.com) or Kahoot! (getkahoot.com) to create clicker-like polling interaction or quick quizzes to increase interactivity in teacher-led sections of their lessons. Nearpod (nearpod.com) even allows learners to follow the teacher's slides on their own devices before a quiz, and can be set as in-class, preclass, or post-class work. Lectures are not, however, a large part of contemporary communicative language teaching. If there are such elements, they are often concerned either with focus on explicit language knowledge (grammar explanations) or with presentations of aspects of the target language culture. Useful as these might be for grammatical explanations at the point of need, language learning today involves using the language with the aim of developing implicit language knowledge more than it is about learning explicit language knowledge (that is,

knowledge about the language and how it "works"). One useful way for learners to use technology outside class time is for extensive language activities. These may or may not be part of a flipped learning approach, depending on how directly they are set to prepare the learners for a coming class.

Extensive language practice

Extensive reading can be accomplished and supported with e-book readers or reader apps on tablets or computers, and access to online libraries and their content can be greatly enhanced by using web technology to locate and download suitable texts. Systems that allow the reader to simultaneously read a text and hear it read aloud can be very suitable. Learners may be asked to view a section of a movie or an act of a play before a class in which the task might be to create their own version of a scene. Other kinds of texts, primarily non-fiction and those that relate to current events or topics of particular interest to the learners can, with some effort, be found on the web. Every day, vast quantities of text are produced in most of the target languages that language learners need and they are distributed freely, available to anyone who wants them. Automatic text simplification and reading support processes (Anderson-Inman & Horney 2007; Huang & Liou, 2007), while still not fully developed, might allow a teacher or a learner to adjust a setting to a level that is appropriate for the learner to enjoy extensive reading.

Extensive writing is also an excellent way for learners to develop fluency (Brown & Lee, 2015). Many educators have their students write outside class. This writing can be in private journals or blogs (Domalewska, 2014) and collaboratively, such as in in web-based wikis (Wang, 2015). Learners' writing is used as an input for their classmates, who may be asked to comment on each other's blog entries. This kind of extensive writing or journalling can be a useful flipped element, allowing learners to engage in writing about a stimulus image or text before they come to class for spoken interaction with their teacher or peers. It can also allow learners to activate formal and content schemata (Guo & Ma, 2015; Kaplan, 1966) individually, before they are influenced by their classmates.

Oral skills can also be subject to extensive practice before class. Extensive listening to purposively or self-selected podcasts at a suitable level in the target language should help learners in many ways (Rosell-Aguilar, 2015). Even listening to a reading of a text they will meet in class should help learners develop initial understanding. Extensive speaking practice is more unusual, but smartphones have put an audio recorder in most students' pockets, and free talking (which is like free writing, but oral) can be a way to get used to pronouncing and repeating the target language. Extensive speaking practice can be quite challenging for some learners, so this kind of private practice (either unscripted stream of consciousness speech or repeating a reading or a dialogue, recording it and listening) can, in the author's extensive experience, be liberating. This practice can be unfocused extensive speaking, or more directly done alone in preparation for a coming class as a pre-class activity, or in communication with other students. For example, Huang (2015) provides a study of voice blogging by tertiary students in Taiwan.

Communication between learners is, of course, also possible outside the classroom, and tele-collaboration can be set up to provide authenticity. Social media, forums, and chats allow synchronous and asynchronous oral or written communication. Toetenel (2014) reported the use of a social networking site for informal language practice. This was also the focus of Thomas's (2013) work on students' second-language identity in a range of Web 2.0 and virtual world environments. There has been quite a bit of recent work examining the use of interactive web technology for language learning, generally in a communicative approach for free language production of some kind. Yen, Hou, and Chang (2015) had Business College students in Taiwan engage in role-playing on Facebook and Skype, and found that this task-based approach supported the development of learners' spoken and written proficiency. Chen, Shih, and Liu

(2015) studied blog-mediated interaction between students at two universities in Taiwan and found that most of the participants enjoyed the interaction with outsiders, and increased their vocabularies. While these activities may be done inside or outside the classroom, they suit a flipped model—spoken interaction via Skype is acoustically challenging in a classroom environment (Cunningham, 2014), and Facebook interaction can be asynchronous.

Conclusion

This paper has shown how flipped pedagogy, although originally developed for secondary education, is particularly suited to teaching languages at tertiary level. The affordances of nontransient recorded lectures or presentations before class are not only that class time becomes available for essential interaction in the target language, but also that learners are empowered to take charge of their learning. Bergmann and Sams (2014, p. 33) describe a trajectory often taken by teachers who embark on the flipped learning model, moving from creating a library of ondemand (non-transient) video content as novice flipped educators, then increasing learner autonomy, and eventually allowing learners to move through the curriculum at their own pace, accessing content as they move through. In tertiary language teaching this autonomy is particularly appealing to students who often have a language as a minor subject, and need to fit their study around other commitments. Non-transient resources are here to stay, and language teachers will use them in ways we have not begun to imagine. They may also offer inspiration to other tertiary educators.

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